New Brunswick Economic Statistics

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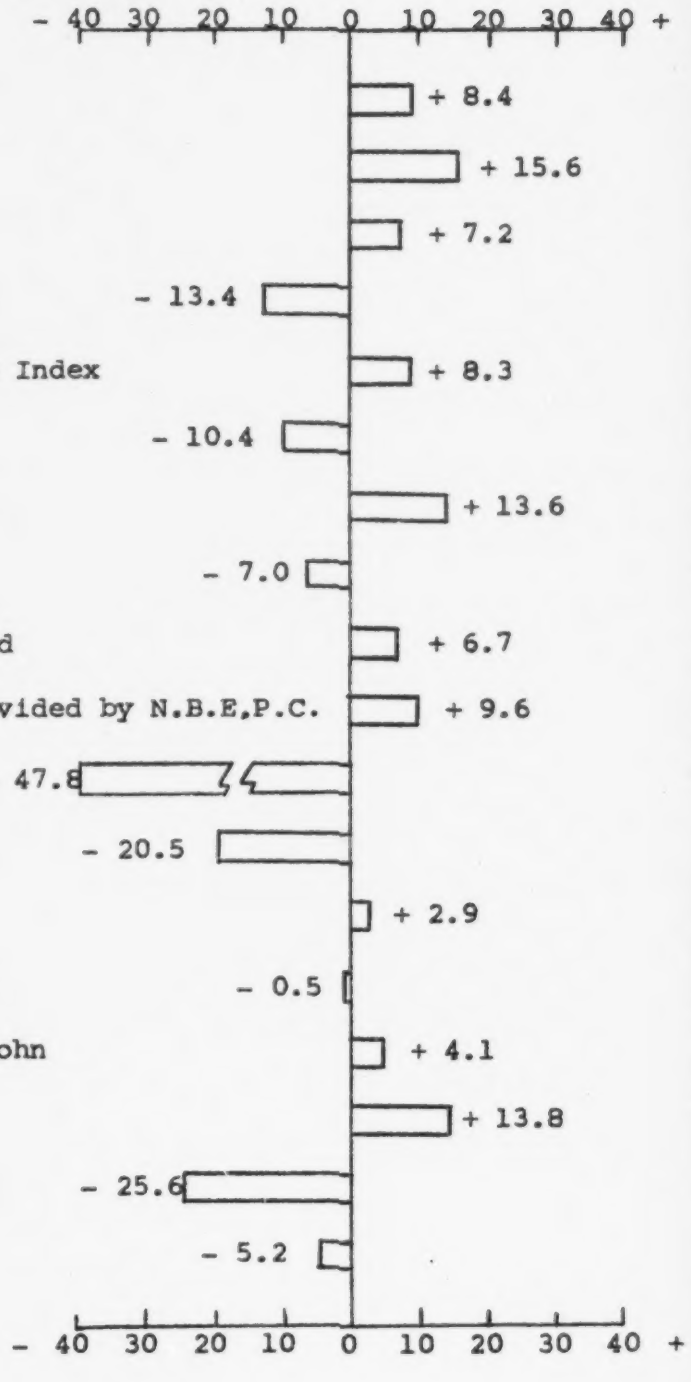
SELECTED ECONOMIC INDICATORS

NEW BRUNSWICK

Percentage Change 66/65

Period	Economic Indicator	Percentage Change 66/65
66/65	GPP Estimate	+ 8.4
Jan.-July	Wages & Salaries (seasonally adjusted)	+ 15.6
Jan.-July	Employment Index (seasonally adjusted)	+ 7.2
2 Q.	Farm Cash Receipts	- 13.4
3 Q.	Pulp & Paper Production Index	+ 8.3
Jan.-Aug.	Pulpwood Production	- 10.4
Jan.-Aug.	Sawn Lumber Production	+ 13.6
Jan.-Sept.	Coal Production	- 7.0
Jan.-Sept.	Net Electric Energy Used	+ 6.7
Jan.-Sept.	Net Electric Energy Provided by N.B.E.P.C.	+ 9.6
Jan.-Aug.	Building Permits	- 47.8
Jan.-Oct.	Construction Contracts	- 20.5
Jan.-Sept.	Retail Trade	+ 2.9
Jan.-Sept.	New Motor Vehicle Sales	- 0.5
Jan.-Oct.	Port Traffic at Saint John	+ 4.1
Jan.-Aug.	Cheques Cashed	+ 13.8
Jan.-Aug.	Fish Landings (Volume)	- 25.6
Jan.-Aug.	Fish Landings (Value)	- 5.2



NEW BRUNSWICK ECONOMIC STATISTICS

December 1966

I PRODUCT DATA SHEETS

At the back of this issue you will find the first three of a continuing series of Product Data Sheets. These are prepared in our Office as background information for those making decisions that may effect the production or marketing of a particular product. In many cases those concerned have an engineering, financial or administrative background and limited knowledge of the product involved. The idea behind the Product Data Sheets is to provide a brief summary and indicate the sources of more detailed information. Since they have proven useful within the government, we felt they might be of some general interest, and intend to publish further data sheets as they become available. Additional copies of particular Product Data Sheets are available on request.

II THE NEW BRUNSWICK ECONOMY

Summary

The New Brunswick economy has been levelling off in the second and third quarters of 1966. Following a good first quarter, growth in the succeeding months has been slow.

New Brunswick's gross product is still expected to reach $1,160 in 1966. This will mean an increase of 8.4% over 1965, or approximately 5.0% in real terms. While construction and investment were the main stimulants last year, the 1966 gain is largely attributable to the increase in wages and salaries, and to the continued expansion in the services sector, especially tourism.

Population

New Brunswick's population as of June 1 was estimated to be 627,000 by the Dominion Bureau of Statistics. This represents an increase of 0.6% from the previous June. The crude birth rate continues to decline, with births for the first ten months of 1966 totalling only 10,815, down 11.4% from the ten months total of 12,201 in 1965. Marriages and deaths are only slightly higher than last year.

Labour

For the first seven months, wages and salaries (seasonally adjusted) are 15.6% above last year's level, with average weekly wages and salaries up 7.0% for the same period. The employment index (1961 = 100) shows a gain of 7.2% over last year. Despite those increases, however, both male and female unplaced applicants are higher this year, 2.0% and 5.1% respectively for the first ten months. Unemployment insurance benefits payments are 5.0% lower for the January-September period.

Primary Industries

This sector continues to do poorly during 1966, with all indicators showing a decline from last year's levels. For the first half of 1966, farm cash receipts are down 13.4%, while pulpwood production for the January-August period is 10.4% lower. For the same seven months, the volume of fish landings declined by 25.6%, its value by 5.2%, and the volume and value of lobsters by 7.2% and 14.6% respectively. However, reports from the fishery districts suggest that the volume and the value of both the fish and the lobster catch have increased substantially in more recent months. Coal production for the first nine months are 7.0% lower than last year. The gross value of mining production in metallics is expected to reach $72 million in 1966, up 10.8% from last year.

Manufacturing

The gross value of manufacturing shipments for the January-August period is 2.2% above the level for the same period in 1965. Pulp and paper production for the first three quarters is up 8.3%, and sawn lumber, for the first eight months, up 13.6%.

Power

Net electric energy consumption is up by 6.7% for the first nine months, while net electric energy provided by N.B.E.P.C. is 9.6% higher.

Construction

The value of construction contracts awarded has decreased 20.5% so far this year. The biggest decline has taken place in residential contracts (32.3%), with smaller drops in engineering (23.3%), business (13.9%), industrial (9.9%) and institutional contracts (1.8%). The value of building permits issued show a decrease of 47.8% for the January-August period. Residential permits declined 28.1% and non-residential permits 54.7%. Housing starts and completions for the first three quarters are down 11.7% and up 10.5% respectively.

Trade and Finance

New motor vehicle sales is the weak part of this sector. For the first nine months the total value of new motor vehicle sales is 0.5% lower than last year, with commercial vehicles down 8.2%, and passenger vehicles up by 1.7%. The value of retail trade is slightly above last year's level (2.9%). This increase is virtually all due to price changes, because the consumer price index for Saint John so far this year is 2.5% higher than in 1965. Cheques cashed in clearing houses are 13.8% higher this year, and life insurance sales are up by 4.5%.

Transportation and Tourism

Tourism has done very well this year. The total number of foreign vehicles entering New Brunswick from Maine is up 5.6% over last year as of the end of October. Port traffic trhough the Saint John Harbour was up by 4.1% for the January-October period.

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(1) POPULATION

Table 1

Population

Quarter	1963	1964	1965	1966
			Thousands	
January	611	615	621	626
April	613	616	623	626
June	614	617	623	627
October	615	619	625	
% change (3 Q.)		(+0.5)	(+1.0)	(+0.6)

Source: D.B.S. 11-003.

Table 2

Marriages

Month	1963	1964	1965	1966
			Number	
January	121	291	292	273
February	209	212	125	175
March	131	161	270	209
April	274	256	240	281
May	310	364	317	415
June	488	482	356	419
July	551	599	584	703
August	714	690	406	528
September	456	540	842	712
October	452	508	573	486
November	406	360	467	
December	279	274	313	
Total	4,391	4,737	4,785	
% change (Jan.-Oct.)		(+10.7)	(-2.4)	(+4.9)

Source: D.B.S. 11-003.

Table 3

Births

Month	1963	1964	1965	1966
			Number	
January	1,263	1,218	1,435	1,063
February	1,136	1,182	802	1,053
March	1,432	1,289	1,439	1,237
April	1,334	1,292	1,350	985
May	1,374	1,336	1,209	1,264
June	1,350	1,284	1,123	1,022
July	1,399	1,370	1,165	1,033
August	1,355	1,344	839	1,008
September	1,334	1,337	1,468	1,071
October	1,317	1,246	1,371	1,079
November	1,238	1,249	1,294	
December	1,239	1,191	1,196	
Total	15,771	15,593	14,691	
% change (Jan.-Oct.)		(-3.0)	(-5.4)	(-11.4)

Source: D.B.S. 11-003 & 84-202.

Table 4

Deaths

Month	1963	1964	1965	1966
			Number	
January	425	442	465	478
February	353	421	252	325
March	516	427	444	491
April	474	373	463	372
May	401	387	386	453
June	379	392	354	368
July	350	408	332	316
August	348	398	255	333
September	386	412	474	382
October	392	393	458	384
November	386	389	456	
December	405	410	393	
Total	4,815	4,852	4,732	
% change (Jan.-Oct.)		(+0.7)	(-4.2)	(+0.5)

Source: D.B.S. 11-003.

(II) LABOUR

Table 5

Wages and Salaries (seasonally adjusted)

Month	1963	1964	1965	1966
		Million Dollars		
January	34.8	37.4	40.3	46.6
February	34.6	37.6	40.8	46.6
March	35.2	37.3	41.8	47.5
April	35.1	38.2	42.2	50.0
May	34.9	38.5	43.1	49.2
June	35.3	38.7	42.8	50.3
July	35.4	39.3	43.8	50.5
August	36.1	39.6	44.5	
September	36.1	40.6	45.8	
October	36.2	40.1	45.5	
November	36.7	40.0	45.8	
December	36.9	40.2	45.2	
Total	427.3	467.5	521.6	
% change (Jan.-July)		(+8.8)	(+10.4)	(+15.6)

Source: D.B.S. 72-005.

Table 6

Wages and Salaries in Manufacturing (seasonally adjusted)

Month	1963	1964	1965	1966
		Million Dollars		
January	7.0	7.4	7.9	8.7
February	7.1	7.4	7.9	9.1
March	7.3	7.3	8.3	8.8
April	7.3	7.5	8.1	9.4
May	7.1	7.6	8.4	9.1
June	7.2	7.5	8.2	9.1
July	7.2	7.6	8.4	9.2
August	7.3	7.6	8.6	
September	7.3	7.9	8.6	
October	7.3	7.8	8.7	
November	7.3	7.7	8.6	
December	7.4	7.8	8.4	
Total	86.8	91.1	100.1	
% change (Jan.-July)		(+4.2)	(+9.4)	(+10.8)

Source: D.B.S. 72-005.

Table 7

Average Weekly Wages and Salaries

Month	1963	1964	1965	1966
		Dollars		
January	67.67	71.46	74.76	78.99
February	70.12	72.16	76.63	80.51
March	70.77	70.84	76.30	79.87
April	69.54	71.28	74.99	80.93
May	66.60	68.60	73.21	79.42
June	67.51	68.92	72.57	78.71
July	68.07	71.31	73.78	80.22
August	66.54	70.01	73.26	
September	67.60	71.04	75.08	
October	68.06	72.74	76.13	
November	68.89	71.89	75.57	
December	68.53	71.99	74.85	
Average	68.28	71.01	74.76	
% change (Jan.-July)		(+3.0)	(+5.6)	(+7.0)

Source: D.B.S. 72-001 & 72-002.

Table 8

Employment Index (seasonally adjusted)

Month	1963	1964	1965	1966
		1961 = 100		
January	99.1	103.2	105.0	113.3
February	99.8	104.2	105.3	112.5
March	101.3	102.7	107.4	114.3
April	100.7	103.6	108.2	119.0
May	99.9	104.6	108.9	116.0
June	99.1	104.6	109.8	118.3
July	99.6	104.6	111.9	117.4
August	100.8	105.6	111.2	
September	101.4	106.8	111.4	
October	101.4	105.2	111.6	
November	102.0	104.9	112.9	
December	102.6	105.1	111.3	
Average	100.6	104.6	109.6	
% change (Jan.-July)		(+4.0)	(+4.0)	(+7.2)

Source: D.B.S. 72-002.

Table 9

Number of Unplaced Applicants

Month	1963		1964		1965		1966	
	Male	Female	Male	Female	Male	Female	Male	Female
				Thousands				
January	27.6	7.0	23.9	7.4	24.2	6.8	23.0	7.0
February	29.5	7.2	26.7	7.4	25.4	7.0	24.4	7.0
March	30.6	6.9	28.0	6.5	25.5	6.5	24.9	6.7
April	28.7	6.8	26.5	6.1	23.5	6.2	21.1	5.5
May	19.4	4.8	15.2	4.7	10.9	3.8	13.3	4.2
June	8.7	4.3	9.5	4.6	8.1	4.0	8.2	4.3
July	7.5	3.9	7.0	4.1	6.5	3.6	7.2	3.6
August	7.5	3.1	6.6	3.5	5.4	3.0	6.5	3.3
September	6.7	3.1	5.6	3.3	4.6	2.7	6.5	3.6
October	7.4	3.5	7.1	3.8	6.0	3.5	7.8	4.3
November	10.6	4.9	10.5	4.6	9.3	4.7		
December	19.6	6.2	20.4	5.3	18.3	5.7		
Average	17.0	5.1	15.6	5.1	14.0	4.8		
% change (Jan.-Oct.)			(-10.1)	(+1.6)	(-10.2)	(-8.4)	(+2.0)	(+5.1)

Source: National Employment Service.

Table 10

Unemployment Insurance Benefits Payments

Month	1963	1964	1965	1966
		Thousand Dollars		
January	2,869	2,036	2,197	2,041
February	2,813	2,602	2,524	2,630
March	3,139	2,883	3,528	2,858
April	3,198	3,197	2,291	2,424
May	2,528	1,891	1,989	1,736
June	700	659	759	593
July	618	558	446	554
August	495	498	401	484
September	482	493	391	486
October	513	444	358	
November	592	560	541	
December	1,320	912	1,145	
Total	19,267	16,733	16,570	
% change (Jan.-Sept.)		(-12.0)	(-2.0)	(-5.0)

Source: D.B.S. 73-001.

(III) PRIMARY INDUSTRY

Table 11

Farm Cash Receipts

Quarter	1963	1964	1965	1966
		Thousand Dollars		
1st Quarter	10,333	8,750	15,402	13,847
2nd Quarter	9,727	12,867	17,041	14,249
3rd Quarter	9,641	10,060	11,525	
4th Quarter	11,166	15,695	15,466	
Total	40,867	47,372	59,434	
% change (2 Q.)		(+7.8)	(+50.1)	(-13.4)

Source: D.B.S. 21-001.

Table 12

Sources of Farm Cash Receipts

	1963	1964	1965
(A) Field Crops		Thousands of Dollars	
Potatoes	9,862	15,377	25,788
Fruits	1,425	1,514	1,317
Vegetables	896	912	607
Oats	337	300	306
Tobacco	-*	-*	-*
Other Crops	841	980	1,352
Sub-total	13,361	19,083	29,370
(B) Livestock and Livestock Products			
Dairy Products	11,075	11,453	11,432
Cattle and Calves	5,690	6,514	7,444
Eggs	3,895	3,679	3,654
Hogs	2,803	2,851	3,123
Poultry	1,584	1,570	2,302
Sheep and Lambs	303	240	256
Other	413	423	421
Sub-total	25,763	26,730	28,632
(C) Forest and Maple Products			
	1,709	1,533	1,402

*Receipts from the sale of tobacco are included with "other crops" because less than three firms reporting.

Source: D.B.S. 21-001.

Table 13

Pulpwood Production - Domestic Use

Month	1963	1964	1965	1966
		Thousand Cunits		
January	42.4	77.0	48.4	46.3
February	19.7	58.8	66.1	30.7
March	35.2	49.6	31.3	30.6
April	30.8	38.3	18.3	25.9
May	22.8	7.6	62.4	26.5
June	70.8	118.4	114.1	137.3
July	89.9	156.2	144.3	136.2
August	106.3	164.4	120.3	109.0
September	119.1	199.0	116.4	
October	96.8	138.3	95.5	
November	99.1	111.9	84.5	
December	153.3	80.6	70.7	
Total	886.2	1,200.1	972.3	
% change (Jan.-Aug.)		(+60.4)	(-9.7)	(-10.4)

Source: D.B.S. 25-001.

Table 14

Coal Production

Month	1963	1964	1965	1966
(A) Total		Thousand Tons		
January	66.4	80.1	78.5	80.2
February	66.0	74.6	78.6	73.4
March	67.1	80.4	82.4	82.4
April	63.1	78.6	81.4	67.1
May	63.6	75.9	81.6	69.1
June	69.8	82.4	78.6	61.1
July	83.8	86.2	74.4	66.2
August	79.6	90.7	84.3	85.4
September	83.4	94.9	86.1	90.0
October	93.4	92.5	93.8	
November	76.2	88.1	89.3	
December	74.0	79.1	88.4	
Total	886.4	1,003.5	997.4	
% change (Jan.-Sept.)		(+15.7)	(-2.4)	(-7.0)

- continued -

Table 14

- continued -

Month	1963	1964	1965	1966
(B) Strip Mines		Thousand Tons		
January	53.0	66.0	65.9	67.4
February	52.5	62.0	66.8	61.5
March	53.3	66.6	68.4	68.4
April	49.2	65.6	68.5	54.2
May	49.9	66.2	70.3	57.2
June	57.7	71.5	67.1	48.6
July	71.9	75.2	62.7	55.3
August	67.7	80.1	73.7	73.8
September	70.8	83.1	75.3	79.6
October	80.6	81.3	83.2	
November	63.3	77.8	77.9	
December	60.4	66.3	74.3	
Total	730.3	861.7	854.1	
% change (Jan.-Sept.)		(+21.0)	(-2.8)	(-8.5)
(C) Underground Mines				
January	13.4	14.1	12.7	12.8
February	13.5	12.5	11.8	11.9
March	13.8	13.8	13.9	13.9
April	13.9	13.0	12.9	12.9
May	13.6	9.8	11.3	12.0
June	12.1	11.0	11.5	12.5
July	11.9	11.0	11.7	10.9
August	11.9	10.6	10.6	11.7
September	12.6	11.8	10.8	10.4
October	12.8	11.2	10.6	
November	12.9	10.3	11.4	
December	13.6	12.8	14.0	
Total	156.0	141.9	143.2	
% change (Jan.-Sept.)		(-7.8)	(-0.4)	(+1.7)

Source: D.B.S. 45-002 & N.B. Department of Lands and Mines.

Table 15

Volume of Fish Landings

Month	1963	1964	1965	1966
		Thousand Pounds		
January	3,540	1,020	8,255	1,853
February	1,485	8,027	3,968	1,840
March	353	5,319	6,965	4,967
April	2,057	3,897	3,890	11,005
May	32,457	34,487	45,838	34,330
June	38,226	32,140	34,917	25,244
July	31,035	36,560	37,004	34,436
August	39,296	40,102	46,931	26,104
September	34,922	30,259	41,115	
October	27,249	24,815	33,569	
November	17,807	21,196	15,863	
December	4,460	13,779	9,910	
Total	232,887	251,601	288,225	
% change (Jan.-Aug.)		(+8.8)	(+16.2)	(-25.6)

Source: D.B.S. 24-002.

Table 16

Value of Fish Landings and Seaweeds

Month	1963	1964	1965	1966
		Thousand Dollars		
January	114	92	233	98
February	65	177	165	119
March	22	140	183	139
April	87	149	164	318
May	820	1,274	1,502	1,229
June	1,815	1,629	1,737	1,556
July	980	1,206	1,112	1,718
August	1,896	2,184	2,117	1,659
September	1,656	1,425	1,302	
October	826	835	924	
November	684	736	683	
December	321	424	435	
Total	9,286	10,271	10,557	
% change (Jan.-Aug.)		(+18.1)	(+5.3)	(-5.2)

Source: D.B.S. 24-002.

Table 17

Volume and Value of Lobster Catch

Month	1963		1964		1965		1966	
	Qnty. '000 lbs.	Val. $'000	Qnty. '000 lbs.	Val. $'000	Qnty. '000 lbs.	Val. $'000	Qnty. '000 lbs.	Val. $'000
January	39	28	48	34	33	30	19	18
February	21	16	16	13	11	12	6	6
March	9	7	14	12	12	13	4	4
April	21	13	55	39	37	31	40	28
May	914	401	1,408	776	1,233	720	1,149	618
June	1,703	762	1,047	558	1,138	694	1,009	571
July	148	68	30	16	95	59	438	238
August	2,289	1,035	2,222	1,332	1,832	1,031	1,408	730
September	1,885	941	1,256	766	802	457		
October	482	246	543	330	285	161		
November	615	353	417	319	382	334		
December	323	198	204	160	253	233		
Total	8,449	4,068	7,260	4,355	6,113	3,775		
% change (Jan.-Aug.)			(-5.9)	(+19.3)	(-9.3)	(-6.8)	(-7.2)	(-14.6)

Source: D.B.S. 24-002.

(IV) MANUFACTURING

Table 18

Gross Value of Manufacturing Shipments

Month	1963	1964	1965	1966
	Thousand Dollars			
January	32,287	34,516	32,164	35,080
February	29,588	34,298	33,397	32,726
March	33,960	35,235	40,737	37,068
April	33,003	37,524	38,539	35,159
May	41,911	42,011	38,568	41,122
June	40,102	44,124	43,900	45,686
July	42,980	41,222	40,163	41,669
August	42,387	40,642	38,618	44,383p
September	38,814	42,512	41,473	
October	44,103	39,311	39,782	
November	38,814	37,085	38,197	
December	33,918	35,653	35,270	
Total	451,867	464,133	460,808	
% change (Jan.-Aug.)		(+4.5)	(-1.1)	(+2.2)

Source: D.B.S. 31-001.

Table 19

Pulp and Paper Production Index

Quarter	1963	1964	1965	1966
		1953 Quarterly Average = 100		
1st Quarter	122.5	134.6	166.0	177.9
2nd Quarter	137.8	146.9	172.0	185.2
3rd Quarter	132.3	146.5	166.3	182.9
4th Quarter	141.8	152.4	175.7	
% change		(+9.0)	(+17.8)	(+8.3)

Source: Computed from the data provided by the Canadian Pulp and Paper Association.

Table 20

Sawn Lumber Production

Month	1963	1964	1965	1966
		Million Feet, Board Measure		
January	28.4	21.7	18.3	18.4
February	28.8	27.7	19.3	20.6
March	29.8	31.9	21.8	22.6
April	14.9	22.7	15.8	15.3
May	18.1	22.5	14.2	17.9
June	34.1	31.9	22.1	26.7
July	39.2	32.4	20.1	25.8
August	28.8	18.4	21.9	27.0
September	18.4	19.7	20.3	
October	20.7	24.3	21.7	
November	12.1	14.0	14.3	
December	15.7	18.2	24.7	
Total	289.0	285.4	234.5	
% change (Jan.-Aug.)		(-5.8)	(-26.6)	(+13.6)

Source: D.B.S. 35-002.

Table 21

Net Electric Energy Used in New Brunswick*

Month	1963	1964	1965	1966
		Million Kilowatt Hours		
January	171	192	238	258
February	156	183	226	236
March	174	188	247	258
April	166	187	231	246
May	173	188	239	255
June	166	191	233	248
July	162	197	231	247
August	178	201	235	261
September	174	203	238	251
October	188	222	260	
November	187	219	252	
December	194	225	254	
Total	2,089	2,396	2,884	
% change (Jan.-Sept.)		(+13.8)	(+22.4)	(+6.7)

*This series is based on a sample by the Dominion Bureau of Statistics. Thus the monthly values do not aggregate to the correct annual totals. Correct annual totals may be found in the June 1966 Quarterly and will be shown in future annuals.

Source: D.B.S. 57-001.

Table 22

Net Electric Energy Provided by N.B.E.P.C. for Consumption

Month	1963	1964	1965	1966
		Million Kilowatt Hours		
January	125	139	176	206
February	110	134	187	186
March	123	134	190	200
April	114	133	184	187
May	122	134	177	199
June	115	134	175	191
July	110	144	172	195
August	121	146	179	207
September	119	150	183	207
October	127	160	199	
November	126	168	191	
December	142	173	199	
Total	1,454	1,749	2,212	
% change (Jan.-Sept.)		(+17.8)	(+30.0)	(+9.6)

Source: N.B.E.P.C.

(VI) CONSTRUCTION

Table 23

Building Permits Issued

Month	1963	1964	1965	1966
		Thousand Dollars		
(A) Total				
January	743	676	1,146	713
February	203	1,773	1,894	1,541
March	1,063	1,890	5,028	4,937
April	2,749	2,167	3,926	2,769
May	3,630	5,539	3,826	8,819
June	4,158	7,761	5,580	3,000
July	2,903	5,454	29,738	4,238
August	7,130	4,996	5,907	3,772
September	3,326	8,240	5,814	
October	2,150	10,254	5,738	
November	6,232	4,283	2,832	
December	2,080	852	1,117	
Total	36,367	53,885	72,546	
% change (Jan.-Aug.)		(+34.0)	(+88.5)	(-47.8)
(B) Residential				
January	223	294	364	396
February	62	154	274	342
March	132	335	1,118	900
April	1,014	1,409	2,123	1,630
May	1,625	2,127	2,567	2,551
June	1,345	4,187	3,251	1,768
July	1,752	1,462	2,165	1,460
August	1,752	2,940	2,940	1,597
September	1,571	3,190	2,022	
October	1,244	1,538	1,967	
November	2,406	1,678	1,226	
December	1,636	495	585	
Total	14,762	19,809	20,602	
% change (Jan.-Aug.)		(+63.2)	(+14.7)	(-28.1)

- continued -

Table 23

- continued -

Month	1963	1964	1965	1966
(C) Non-residential		Thousand Dollars		
January	520	382	782	317
February	141	1,619	1,620	1,199
March	931	1,555	3,910	4,037
April	1,735	758	1,803	1,139
May	2,005	3,412	1,259	6,268
June	2,813	3,574	2,329	1,232
July	1,151	3,992	27,573	2,778
August	5,378	2,056	2,967	2,175
September	1,755	5,050	3,792	
October	906	8,716	3,771	
November	3,826	2,605	1,606	
December	444	357	532	
Total	21,605	34,076	51,944	
% change (Jan.-Aug.)		(+18.2)	(+143.5)	(-54.7)

Source: D.B.S. 64-001.

Table 24

Housing Starts and Completions (All Areas)

Quarter	1963	1964	1965	1966
(A) Starts				
1st Quarter	20	126	88	258
2nd Quarter	475	724	1,044	853
3rd Quarter	616	1,108	1,011	782
4th Quarter	558	1,086	686	
Total	1,669	3,044	2,829	
% change (3 Q.)		(+76.2)	(+9.4)	(-11.7)
(B) Completions				
1st Quarter	344	668	898	846
2nd Quarter	464	217	448	806
3rd Quarter	327	437	611	510
4th Quarter	569	841	990	
Total	1,704	2,163	2,947	
% change (3 Q.)		(+16.5)	(+48.0)	(+10.5)

Source: D.B.S. 64-002.

Table 25

Construction Contracts Awarded

Month	1963	1964	1965	1966
		Thousand Dollars		
(A) Total				
January	2,083	2,558	3,715	604
February	1,022	1,295	2,412	1,841
March	31,681	1,175	4,192	1,839
April	2,279	1,953	6,854	545
May	4,732	29,311	3,651	5,797
June	6,099	5,711	10,775	7,809
July	18,764	6,274	4,755	9,438
August	4,007	8,987	6,000	1,382
September	5,423	3,748	5,086	4,152
October	5,246	4,287	2,841	6,583
November	5,110	2,865	3,477	
December	2,304	4,923	1,944	
Total	88,750	73,087	55,702	
% change (Jan.-Oct.)		(-19.7)	(-23.0)	(-20.5)

(B) 1966 Breakdown

Month	Residential	Business	Industrial	Engineering	Institutional
			Thousand Dollars		
January	422	75	25	-	82
February	212	58	-	1,437	134
March	98	22	533	356	831
April	59	6	20	223	238
May	824	428	2,000	2,061	484
June	1,306	1,030	119	4,777	577
July	672	1,013	106	6,401	1,246
August	844	268	-	133	139
September	828	1,125	55	617	1,528
October	696	345	400	1,147	3,994
November					
December					
% change Jan.-Oct. 66/65	(-32.3)	(-13.9)	(-9.9)	(-23.3)	(-1.8)

Source: Southam Building Guide.

(VII) TRADE AND FINANCE

Table 26

Value of Retail Trade

Month	1963	1964	1965	1966
		Million Dollars		
January	35.4	39.6	40.3	43.7
February	31.9	37.4	38.4	40.6
March	41.0	44.8	48.6	51.5
April	42.8	46.3	52.5	54.0
May	49.8	53.1	54.5	52.7
June	48.2	49.3	54.2	54.4
July	48.5	51.5	56.4	55.8
August	45.7	46.2	48.7	50.9
September	42.5	46.3	49.1	52.1
October	45.9	51.4	54.0	
November	47.7	49.2	53.7	
December	54.5	56.9	63.5	
Total	533.9	572.0	613.9	
% change (Jan.-Sept.)		(+7.4)	(+6.8)	(+2.9)

Source: D.B.S. 63-005.

Table 27

Value of New Motor Vehicle Sales

Month	1963	1964	1965	1966
(A) All Vehicles		Thousand Dollars		
January	3,147	3,986	4,042	5,384
February	2,750	3,874	4,914	5,438
March	4,037	5,768	6,697	9,683
April	5,434	7,145	8,910	8,261
May	6,755	7,743	8,781	7,275
June	5,938	6,167	8,420	6,702
July	4,151	5,425	5,924	5,510
August	3,173	4,475	6,254	5,185
September	2,837	3,651	3,703	3,901
October	5,503	5,144	5,692	
November	4,597	4,280	5,413	
December	4,226	3,639	5,825	
Total	52,548	61,297	74,575	
% change (Jan.-Sept.)		(+26.2)	(+19.5)	(-0.5)

- continued -

Table 27

- continued -

Month	1963	1964	1965	1966
		Thousand Dollars		
(B) Passenger Vehicles				
January	2,552	3,140	3,123	4,209
February	2,158	2,980	3,835	4,442
March	3,389	4,690	5,392	8,100
April	4,663	5,864	7,107	6,553
May	5,684	6,447	6,724	5,581
June	4,720	4,897	6,465	5,084
July	3,175	4,239	4,438	4,560
August	2,469	3,714	4,831	3,991
September	2,200	2,737	2,848	2,989
October	4,404	3,918	4,638	
November	3,602	3,183	4,192	
December	3,127	2,653	4,413	
Total	42,143	48,462	58,006	
% change (Jan.-Sept.)		(+24.8)	(+15.6)	(+1.7)
(C) Commercial Vehicles				
January	595	846	919	1,175
February	592	894	1,079	996
March	648	1,078	1,305	1,583
April	771	1,281	1,803	1,708
May	1,071	1,296	2,057	1,694
June	1,218	1,270	1,955	1,618
July	976	1,186	1,486	950
August	704	761	1,423	1,194
September	637	914	855	912
October	1,099	1,226	1,054	
November	995	1,097	1,221	
December	1,099	986	1,412	
Total	10,405	12,835	16,569	
% change (Jan.-Sept.)		(+32.1)	(+35.2)	(-8.2)

Source: D.B.S. 63-007.

Table 28

Consumer Price Index (Saint John)

Month	1963	1964	1965	1966
			1949 = 100	
January	132.4	134.1	135.5	137.8
February	132.7	134.3	135.6	138.7
March	132.9	134.3	135.9	138.8
April	133.2	134.3	136.1	139.7
May	133.3	134.4	136.4	139.8
June	134.1	134.8	137.6	140.8
July	134.0	135.5	138.0	140.9
August	134.1	135.5	137.8	141.8
September	133.5	135.3	137.5	141.9
October	133.0	134.6	137.1	141.7p
November	133.3	134.8	137.6	
December	133.8	135.1	138.2	
Average Index	133.4	134.8	136.9	
% change (Jan.-Oct.)		(+1.0)	(+1.5)	(+2.5)

Source: D.B.S. 62-002.

Table 29

Cheques Cashed in Clearing Houses

Month	1963	1964	1965	1966
			Million Dollars	
January	243.7	258.9	289.4	340.3
February	215.7	231.0	290.7	316.6
March	237.8	257.5	317.2	342.9
April	237.2	290.1	324.6	372.9
May	240.3	287.5	320.2	383.3
June	253.6	297.8	315.5	395.6
July	282.8	283.4	325.9	358.4
August	248.6	284.9	352.3	376.4
September	240.9	295.9	348.9	
October	266.5	298.8	308.0	
November	271.9	286.9	337.9	
December	267.1	305.6	345.8	
Total	3,006.1	3,378.3	3,876.4	
% change (Jan.-Aug.)		(+11.8)	(+15.7)	(+13.8)

Source: D.B.S. 61-001.

Table 30

Life Insurance Sales

Month	1963	1964	1965	1966
			Million Dollars	
January	7.8	7.7	8.6	9.1
February	8.9	9.0	12.1	12.9
March	9.7	9.5	12.5	12.8
April	8.6	9.6	11.7	12.0
May	8.7	10.1	12.7	13.0
June	10.2	11.2	13.0	12.7
July	9.4	9.5	11.0	11.6
August	8.5	9.2	10.9	11.3
September	8.7	10.6	11.3	13.1
October	10.2	10.7	12.7	
November	11.3	10.9	14.5	
December	11.2	10.4	11.5	
Total	113.2	118.4	142.5	
% change (Jan.-Sept.)		(+7.3)	(+20.1)	(+4.5)

Source: D.B.S. 11-003.

(VIII) TRANSPORTATION AND TOURISM

Table 31

Number of Foreign Vehicles Entering
at New Brunswick - Maine Border Points

Month	1963	1964	1965	1966	% one day in 1965*
January	17,186	19,955	21,777	24,151	76.3
February	16,211	20,553	20,644	23,557	74.6
March	21,709	25,120	26,280	27,687	75.1
April	26,960	29,222	32,512	36,599	73.6
May	33,729	38,490	40,375	41,509	70.7
June	47,357	47,053	47,391	50,871	63.7
July	69,212	76,162	87,255	95,689	47.8
August	70,148	73,303	78,627	78,218	48.9
September	46,417	47,626	50,522	50,304	62.5
October	35,254	38,446	40,410	42,392	68.5
November	29,539	32,488	32,166		70.8
December	26,415	26,205	29,789		72.9
Total	440,137	474,623	507,748		
% change (Jan.-Oct.)		(+8.3)	(+7.2)	(+5.6)	

*percent of total vehicles for the month staying in the Province only one day.

Source: D.B.S. 66-001 & 66-002.

Table 32

Railway Freight Loaded at Points in New Brunswick

Quarter	Agricultural Products	Mine Products	Forest Products	Manuf. & Misc.	Total
			Thousand Tons		
1963					
1 Q.	119.1	199.7	249.0	472.8	1,040.8
2 Q.	94.6	262.2	162.0	529.1	1,047.9
3 Q.	16.5	274.9	182.3	373.3	847.0
4 Q.	91.6	296.2	161.6	410.3	959.5
Total	321.8	1,033.0	754.9	1,785.5	3,895.2
1964					
1 Q.	109.8	263.6	332.4	488.2	1,194.0
2 Q.	118.2	330.2	187.4	574.0	1,210.0
3 Q.	20.1	401.9	209.8	408.6	1,040.5
4 Q.	111.6	340.9	212.4	431.1	1,096.0
Total	359.7	1,336.6	942.0	1,901.9	4,540.5
% change (2 Q.)	(+6.7)	(+28.6)	(+26.5)	(+6.0)	(+15.1)
1965					
1 Q.	117.5	327.0	280.6	575.7	1,300.8
2 Q.	97.0	376.9	171.4	581.6	1,227.0
3 Q.	20.1	266.8	205.2	463.0	955.0
4 Q.	97.7	340.3	183.7	456.6	1,079.3
Total	332.3	1,311.0	840.9	2,076.9	4,562.1
% change (2 Q.)	(-5.9)	(+18.5)	(-13.0)	(+9.0)	(+5.1)
1966					
1 Q.	102.8	248.7	257.5	535.3	1,144.2
2 Q.	87.5	319.9	219.4	612.5	1,239.5
3 Q.					
4 Q.					
Total					
% change (2 Q.)	(-11.3)	(-19.2)	(+5.5)	(-0.8)	(-5.7)

Source: D.B.S. 52-002.

Table 33

Railway Freight Unloaded at Points in New Brunswick

Quarter	Agricultural Products	Mine Products	Forest Products	Manuf. & Misc.	Total
			Thousand Tons		
1963					
1 Q.	500.3	257.0	132.6	542.8	1,432.6
2 Q.	137.2	272.1	75.9	364.2	849.5
3 Q.	94.8	274.8	108.6	267.6	745.6
4 Q.	332.8	296.8	66.8	346.7	1,042.8
Total	1,065.1	1,100.7	383.9	1,521.3	4,070.5
1964					
1 Q.	622.7	301.6	169.2	606.2	1,699.6
2 Q.	293.6	336.0	140.8	500.6	1,271.1
3 Q.	84.4	396.3	173.5	319.6	973.9
4 Q.	163.6	380.7	137.7	390.1	1,072.0
Total	1,164.3	1,414.6	621.2	1,816.5	5,016.6
% change (2 Q.)	(+43.7)	(+20.5)	(+48.7)	(+22.0)	(+30.2)
1965					
1 Q.	444.9	412.2	195.4	719.4	1,771.7
2 Q.	396.8	411.3	159.4	515.8	1,483.4
3 Q.	124.5	330.8	188.7	374.2	1,018.2
4 Q.	208.1	415.9	112.1	437.2	1,173.3
Total	1,174.3	1,570.2	655.6	2,046.6	5,446.6
% change (2 Q.)	(-8.1)	(+29.2)	(+14.5)	(+11.6)	(+9.6)
1966					
1 Q.	652.4	340.5	171.6	598.6	1,763.0
2 Q.	294.1	371.3	162.2	503.4	1,331.1
3 Q.					
4 Q.					
Total					
% change (2 Q.)	(+12.5)	(-13.6)	(-5.9)	(-10.8)	(-4.9)

Source: D.B.S. 52-002.

Table 34

Total Port Traffic - Saint John Harbour

Month	1963	1964	1965	1966
		Thousand Cargo Tons		
January	629.0	794.1	725.2	723.5
February	609.1	696.6	738.8	730.8
March	758.9	759.7	749.4	825.2
April	438.9	529.6	425.3	462.9
May	360.8	372.6	357.4	448.7
June	274.9	422.7	504.7	433.4
July	477.7	383.2	394.0	459.4
August	374.8	422.6	416.2	473.6
September	440.4	405.3	382.9	447.7
October	371.1	458.9	432.9	329.7
November	540.1	412.6	441.8	
December	635.9	604.6	546.4	
Total	5,911.6	6,262.5	6,115.0	
% change (Jan.-Oct.)		(+10.8)	(-2.3)	(+4.1)

Source: National Harbours Board, Port of Saint John.

Table 35

Port Traffic - Saint John Harbour
(Thousand Cargo Tons)

	Incoming Traffic			Outgoing Traffic		
Month	1965	1966	% Change	1965	1966	% Change
January	335.2	312.7	- 6.7	390.0	410.8	+ 5.3
February	339.0	331.7	- 2.2	399.8	399.1	- 0.1
March	290.2	358.2	+23.4	459.2	466.9	+ 1.7
April	205.9	261.7	+27.1	219.4	201.1	- 8.3
May	224.9	300.5	+33.6	132.5	148.2	+11.8
June	349.2	259.0	-25.8	155.5	174.4	+12.2
July	243.1	304.2	+25.1	150.9	155.3	+ 2.9
August	271.4	325.1	+19.8	144.8	148.6	+ 2.6
September	198.1	319.3	+61.2	184.8	128.4	-30.5
October	249.3	177.4	+40.5	183.6	152.3	-17.0
November	264.6			177.3		
December	307.3			239.1		
Total	3,278.2			2,836.9		
% change (Jan.-Oct.)		(+9.0)			(-1.5)	

Source: National Harbours Board, Port of Saint John.

PRODUCT DATA PAPERS

#1 MARKETABLE SEAWEEDS - Page 33

#2 THE PEAT INDUSTRY - Page 38

#3 FIDDLEHEADS - Page 46

PRODUCT DATA PAPER #1 - MARKETABLE SEAWEEDS

There are three varieties of seaweed which grow in commercial quantities in the Maritime Provinces. Listed in order of importance, they are Chondrus crispus (Irish moss), Gigartina stellata and Rhodymenia palmata (dulse). Of these three, only two - Irish moss and dulse - are known to exist in commercial quantities in New Brunswick.

MARKET

The more important of these two is dulse, which has been harvested for generations on the Island of Grand Manan in the Bay of Fundy. Since 1956, the annual value of the dulse harvest has averaged $29,000. The value of the harvest in 1966 should be just short of $50,000.

Dulse is used chiefly as a food, being bagged and sold like potato chips. It has a zesty taste and is, needless to say, quite salty. It is often used in various relishes and dressings as a spice.

Irish moss has been harvested in the Maritime Provinces for many years, but has only lately been discovered off New Brunswick shores. Nova Scotia and Prince Edward Island have been, and still are, the big producers of Irish moss, with annual sales running close to half a million dollars.

Agar and carrageenin are derived from Irish moss. These gel-like extracts are very similar and are used primarily in the food, pharmaceutical, cosmetic, leather and textile industries. Their chief property is the ability to stabilize emulsions and to suspend solids. (See Appendix for more details.)

HARVESTING

Dulse is dull red in colour and has broad, thin, rubber-like leaves. It is hand-picked from the shore and from "tide pools" after the tide has gone out. Little or no equipment is needed and the season lasts from late spring to October or November.

New Brunswick fishermen, previous to this year, had never made any serious attempt to harvest Irish moss. They simply cleaned and sold what washed up on beaches after severe storms. Of late, however, interest has been quickening. Beds of moss in commercial quantities have been discovered off the coasts of Northumberland and Gloucester Counties. This summer (1966), the N. B. Department of Fisheries brought a fisherman from Nova Scotia to make demonstrations of the proper method of harvesting the moss. The demonstrations were successful, and several fishermen in the Richibucto Cape-Point Sapin area began to look for the moss seriously. As a result, total sales this year will top $11,000. (New Brunswick's best year for sales of Irish moss was 1962, when total sales were $13,700 - see table at end for values back to 1961.)

Irish moss is a small perennial seaweed, and is usually found at or near low water level. It grows from a small round disc which is attached to the bottom. The proper method of harvesting it is with the use of a rake, either from the shore or from a dory. A properly constructed rake will remove the fronds from the plant without loosening the disc from the bottom. If the disc is pulled free, the plant normally dies. The best moss is usually found in exposed places where the action of the water is violent enough to keep the fronds free from silt.

Both dulse and moss must be dried immediately after picking to prevent rot. Most harvesters clean them (remove other seaweeds, shells, sand, etc.) while they are drying. Dulse is normally spread on the shore to dry, but racks are often built for drying moss. Once dried, neither dulse nor Irish moss can be allowed to become damp. Most collectors, since immediate markets are seldom available, must have dry storage space.

VALUE OF SEAWEED HARVEST, NEW BRUNSWICK

(1961-1966)

Year	Dulse	Irish Moss	Total
1961	$26,100	$ 4,600	$31,000
1962	25,800	13,700	39,500
1963	29,000	1,000	30,000
1964	38,000	6,000	44,000
1965	21,100	-	21,100
1966*	47,400	11,300	58,700

1966* - Preliminary estimate from N.B. Department of Fisheries.

Source: D.B.S. 24-002.

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Note: Irish Moss of New Brunswick / La Mousse d'Irlande au Nouveau Brunswick, available from the Department of Fisheries, Government of New Brunswick, Fredericton, N.B., provides a technical analysis of Irish Moss, its location and harvesting techniques.

APPENDIX

Some Uses of Irish Moss Extract

Dairy Industry:	Chocolate milk Ice cream Cheeses - cottage, cream, and spreads
Bakery Industry:	Icings Pie fillings Piping jellies Meringues
Packing:	Meat canning Fish packing
Other Food Uses:	Confectionery Fountain syrups Gravies Sauces Salad dressings Puddings
Pharmaceuticals and Cosmetics:	Laxatives Cough syrups Hand lotions Toothpaste Shaving cream Jellies
Textiles:	For sizing cloth Printing paste
Brewing:	Clarifying beer
Other Uses:	Leather tanning In water paints Paper making

Irish moss has close substitutes for many purposes. (e.g. various plant gums, synthetic adhesives, starch, etc.)

PRODUCT DATA PAPER #2 - THE PEAT INDUSTRY

PEAT

Peat is a product of decayed vegetation found in the form of bogs in many parts of the world. The principal areas of peat deposits are found in the U.S.S.R., 65,000 sq. miles; Canada, 37,000 sq. miles, Finland, 30,000 sq. miles; Sweden, 19,000 sq. miles; and the United States, 11,200 sq. miles.

Areas of peat represent different stages in a process of development which in many cases has proceeded since the close of the ice age, and which is still in progress. Formation of peat is dependent upon a special combination of climatic and topographic conditions, such as an adequate supply of rainfall, growth of aquatic and moisture-loving plants, and soil that retains water at the surface. These conditions are more generally found in countries having temperate and cold climates.

PEAT BOGS

At one time bogs were fresh water ponds or small lakes. After vegetation began growing at the edges and extended to the center it was pushed down to the bottom by its own weight. Over a long period of time the body of water became filled with vegetation.

This vegetation consists of aquatic plants - mainly mosses, such as sphagnum and hypnum, and reeds, rushes, sedges and grasses.

Peat: The word "peat" itself should be used to describe the contents of a bog in an advanced stage of decomposition. It consists of a thick black bed of decomposed vegetation, caused partly by moist atmospheric oxidation and partly by bacteria, yeasts, molds and fungi. The lower layers, compressed and carbonized, can be used as fuel.

When the main ingredients of a bog consist of decomposed reeds, sedges and rushes, and material, it is called "reed peat" or "sedge peat", or simply "peat humus".

Sphagnum or Floral Moss, which is found in virtually all bogs, is a long, slender plant often forming extensive, thick and springy masses of fine stringy moss. It is used in wreath making and also to keep cut flowers moist because of its high absorptive capacity. It has also been used as an insulating factor in the making of surgical dressings.

Peat Moss is dead sphagnum moss having been excavated, dried and shredded. It has the property of being light and fluffy, also highly absorptive of moisture and heat.

Humus is the life basis of plant growth with its main uses being in agriculture and horticulture. It absorbs and retains moisture and heat from the sun. It loosens clay soil and fills in sandy soils. It supports the life of worms and bacteria that prepare food for the plant. It seizes and holds this plant food and adds its own elements to the supply.

Humus is an excellent food provider for plants.

USES OF PEAT

Peat moss, the dead fibrous moss produced from peat bogs, is valuable because of its high absorbent capacity for liquids and gases, high resistance to decomposition, and low heat conductivity. Because of these properties it makes an excellent stable litter for horses and cattle, and it is especially valuable for poultry litter. Although not a fertilizer in itself, it is a good soil conditioner as it loosens up a clay coil, helps to maintain the moisture in a light sandy soil, and adds valuable organic matter to depleted soils. The main use of peat moss is horticulture making for better lawns, more luxuriant flowers, and stronger plants and shrubs. It makes excellent packing material for the shipment of perishable fruits, vegetables, and cut flowers. It is useful for making compost and as a diluent and carrier in application of artificial fertilizers.

HARVESTING

Preparatory stages of bogs demand that they be drained to a suitable depth to assist drying and also to provide working area. Main drains are laid out according to the topography of the bog. Lateral ditches are subsequently cut at regular intervals to flow into the main drains and also serve as working trenches from whence digging starts. If this drainage is done by hand rather than by machine, some of the peat excavated is marketable.

If the harvesting operation is a manual one, spades are used to cut away blocks (14" x 12" x 4") which are then laid on rocks beside the ditch to dry. When dried the peat is hauled to storage sheds for processing.

On the other hand, a mechanized harvesting system can be used. This entails a discing or roto-tilling operation followed by a vacuum or suction type harvester which picks up the top ¼ to ½ inch of moss which is already fairly dry. Mechanical heat dryers are used for further drying.

Mechanical dryers which have been introduced in some operations make production less dependent on climatic conditions.

PROCESSING

After the moss is dry and in storage it is transferred by conveyor to the mill to be shredded and baked for the shipment. Most of the processed moss is for horticultural purposes and is packaged in polyethylene bags to be shipped. The bags vary in size from 3/4 cu. ft. to 6 cu. ft.

Location of Canadian Peat Moss

Peat moss in North America is situated along or near the ocean littorals and at a latitude of about 46°. Numerous deposits in Canada are confined mainly to Ontario and Quebec and to a lesser extent to the Maritime Provinces. Thus it is found in New Brunswick, Quebec, Ontario, Manitoba and British Columbia

(lately in Alberta, as well). The bulk of the output is obtained from the Riviere-du-Loup area and from the vicinity of New Westminster, B.C. New Brunswick ranks third in production.

Development in New Brunswick

Development of peat bogs in New Brunswick began in the early 1940's when European supplies were cut off and new markets opened up in the U.S. The first bog opened up at Pokemouche in 1942 and was operated by Fafard Peat Moss.

With its nucleus around Shippegan, a large segment of peat acreage is found in Gloucester County, with others located in Northumberland and Kent Counties.

The 1965 shipment total was 41,000 tons, with the markets found mainly in the Eastern U.S. New Brunswick peat moss production in 1964 accounted for approximately 14% of Canada's total of 245,000 tons valued at $7,177,600.

In 1965 there were 747 persons employed in the industry reaching a low of 135 in the off-season. Since 1963 the industry in New Brunswick has become more mechanized with a subsequent decline in total employment.

SHIPPING

Most of the peat moss in New Brunswick is shipped by rail. In 1964, 41,000 tons of peat moss were shipped from Gloucester County with the bulk destined for the states of New York,

Massachusetts, Connecticut, New Jersey, Ohio, and Pennsylvania.

Where the market for peat moss is relatively distant from N.B. plants, the final price charged contains a high freight cost. The following schedule illustrates C.N.R. freight rates from Shippegan to various U.S. points.

New York	$2.55 per 100 lbs.
Massachusetts	$2.50 per 100 lbs.
Ohio	$2.75 per 100 lbs.

Through the efforts of a recently formed association of peat moss producers, called the N.B. Sphagnum Peat Moss Association, more favourable prices have been set. In some cases the freight cost is more than ½ the final price for peat moss. Consequently, producers in the Atlantic Regions feel that more favourable freight rates should be provided and by so doing increase our exporting market in the Eastern U.S. by becoming more competitive with the European peat. For example, the fact that N.B. producers pay from $0.06 to $0.19 per 100 lbs. more than Riviere-du-Loup producers to ship to the U.S., causes competitive hardship.

MARKETS

The quality of New Brunswick peat moss is of very high rating for it contains 95% organic material. Large markets for this product are found in the United States and in Canada. In the U.S. where most of our moss is marketed the product encounters stiff competition first and foremost from Quebec producers

and Europeans, particularly Germans. Another element to combat against is the ever increasing local U.S. production, and more recently, the added competition from possible substitutes of sawdust, mulch and others which is slowly spreading to the Eastern U.S. from the West.

Mechanization Vs. Labour

According to the producers, the real advantage in mechanizing the peat operation is in extending the production period, in reducing its dependency on weather, in increased output and in the ability to satisfy the market with a continuous supply of the product.

It is claimed that properly field dried peat makes better quality peat than machine dried.

The capital requirements for an automated operation virtually preclude small operators from converting their manual operation. For those larger operators such a changeover will permit them to become more competitive on the market. The introduction of a mechanized operation, however, will mean that a considerable number of skilled and semi-skilled labourers will be discharged. This capital outlay is only feasible if at least 700 to 1,000 or more carloads per year are shipped.

With the "profit squeeze" being felt by our N.B. producers, adjustments are in order for them to remain in the industry.

CANADIAN PEAT MOSS PRODUCTION
1958-1964

	N.B.	N.S.	Que.	Ont.	Prairie Provinces	B.C.	Canada
1958							
Q. (tons)	21,080	2,355	43,281	6,123	8,347	67,827	149,013
V. ($)	701,195	26,017	1,056,811	216,055	344,096	2,434,686	4,778,860
1959							
Q.	25,285	2,207	50,578	10,925	16,239	78,815	184,049
V.	808,595	81,460	1,282,081	295,390	649,539	109,623	6,226,688
1960							
Q.	21,062	1,657	56,731	13,566	12,496	80,272	185,784
V.	832,720	68,784	1,342,338	38,614	468,167	3,037,515	6,088,138
1961							
Q.	32,688	4,954	75,741	15,113	18,370	77,165	224,031
V.	1,240,479	217,319	1,788,349	251,352	731,896	3,065,692	7,295,087
1962							
Q.	35,010	4,734	77,899	24,801	19,720	75,881	238,035
V.	1,407,433	132,866	1,968,483	455,826	812,724	2,703,064	7,480,396
1963p							
Q.	31,643	1,475	81,162	30,659	27,975	70,397	243,311
V.	1,066,555	69,859	2,210,613	610,784	1,098,756	3,623,661	8,680,228
1964p							
Q.	27,467	2,875	95,120	27,065	32,487	70,461	225,475
V.	866,861	104,609	2,502,945	573,538	1,507,385	2,844,310	8,399,648
1965p							
Q.	45,355	2,900	91,628	27,100	27,005	73,112	267,100
V.	1,335,428	105,000	2,358,449	762,500	1,022,643	2,611,194	8,195,214

Source: D.B.S. 26-201, 26-203.

PRODUCT DATA PAPER #3 - FIDDLEHEADS

Fiddleheads is the accepted name of an edible wild plant of the fern family. (Fiddleheads - Onoclea Strutiopteris; Matteuccia Struptiopteris; Pteris Pennsylvanicum). The fiddleheads are the edible fronds of the young Ostrich fern. These young fronds are coiled, and their shape somewhat resembles the heads of violins. It is concentrated in North Eastern America, but extends from Newfoundland to British Columbia, south to Upland Virginia, and through the Great Lake States, Missouri and South Dakota.

Its habitat is the rich alluvial soil of streams, rich wood areas and fertile slopes of valleys. The plant is common in swamp areas which are flodded in early spring, but does not thrive in areas which are thickly wooded. Fiddleheads are cut as they emerge from the ground in early spring, after having been covered by the mud of flood waters, but before the uncoiling of the fronds.

The Ostrich ferns begin to grow in mid-May. It is possible to harvest the same area several times during the season. Six to eight pickings, a few days apart, gives each field a season of from two to three weeks. Since the province is divided into several climatic zones, the provincial season lasts 6 to 8 weeks.

The plant is sufficiently abundant to be gathered without fear of extermination, especially if some fronds are left to develop on the depleted crowns. Also, the freely forking roots cause clumps from one plant to spout out at various places. Given six to eight pickings a yield range of 700 to 1,300 pounds is usual.

The thick, succulent, young unrolled fronds of the Ostrich Fern (fiddleheads) are cooked and served as a green vegetable, as a substitute for asparagus. And, since the vegetable lends itself to quick freezing, there is a desire to domesticate it. Canned, and frozen packs of fiddleheads have been introduced on the market as a delicacy.

In New Brunswick

The Encyclopedia Canadiana refers to fiddleheads as "the name of the edible frond of young Ostrich ferns, a local delicacy in New Brunswick". Although its areas of growth are numerous, there is little evidence that the plant is being harvested, exploited or processed other than in New Brunswick. There are indications that some harvesting is being done in the Penobscot Valley in Maine, and that part of the crop is sent to the Boston Market (Atlantic Advocate - June 1961, p. 33). For this reason it has become known as a native New Brunswick crop. But the origin of its harvesting and use can definitely be traced back to the Indian culture prior to the coming of the white man. It is still gathered by the Indian population for their families or for sale.

In New Brunswick, the spring freshets of the Restigouche, Miramichi, St. John and Petitcodiac Rivers flood the alluvial flats where the fern grows in abundance. As the water recedes and the warmer weather sets in, the fiddleheads begin to grow. Harvesting is generally done by Indian families. The fiddlehead greens are the first vegetable of spring in New Brunswick. The early crop usually goes to the fresh markets of the province, the later crop to processing.

PROCESSING

In New Brunswick there are two firms which process this product: Capital Co-Operatives and McCains Limited. The former reports purchasing fiddlehead greens from the St. John River Valley, the Miramichi Valley and the Campbellton-Tide Head area. For the 1966 crop year, the estimated harvest was 125 tons (250,000 pounds). The purchases of Capital Co-Operatives are for canning. Frozen packs of fiddleheads are also processed by McCains Limited.

MARKET

The first crops of this green vegetable generally go to the fresh markets of the province. The later harvests are sold for processing. Processed fiddlehead greens are sold in other parts of Canada, as well as in our own provincial market. Processed fiddleheads have also entered the export market, but estimates as to the intensity of operations are

not available. However, both firms find that sufficient quantities to supply the markets at home and abroad cannot be obtained. Some of the problems which limit the quantity of fiddleheads are:

1. the relatively short season,
2. the impossibility of applying mechanized harvesting,
3. since pickings bring a return of approximately 22 cents per pound to the harvesters; few are interested in harvesting the vegetable.

HARVESTING

To date there has been no domestication of the plant. It grows naturally as a wild plant along the rivers and streams. The Federal Research Station in Fredericton is attempting "to establish whether the fiddlehead fern can be domesticated and profitably grown commercially". The project is under the supervision of Mr. R. G. White, Canada Department of Agriculture.

Fiddlehead operations could become economical under the following conditions:

1. if unused or waste land were used for its cultivation,
2. if the plant were allowed to grow naturally, under normal conditions (moist land; semi-shaded),
3. if by planned cultivation a limited amount of mechanization could be introduced.

Mr. R. G. White, the research officer for horticulture at the Federal Government Station suggests that mechanization,

similar to that of cucumber (or lettuce) harvesting could be applied. There pickers sit on arms attached to tractors and cut the fiddleheads as the tractor moves along the rows of the cultivated plant.